WHAT IS CLAIMED IS:

1. A hexahedral finite element modeling method for controlling an element size, comprising the steps of:

dividing a first face of a hexahedral finite element into four uniform sections, and dividing a second face diagonally opposite to the first face into sixteen uniform sections, thus modeling the hexahedral element into a face-refined transition unit mesh module;

dividing a first edge of the hexahedral finite element having two meshed faces of the face-refined transition unit mesh module in common into two uniform sections, and dividing a second edge diagonally opposite to the first edge into four uniform sections, thus modeling the hexahedral element into a face-refined transition unit mesh module; and

dividing each of three faces of the hexahedral finite element, having three meshed faces of the edge-refined transition unit mesh module in common and meeting each other at a first node, into four uniform sections, and partially dividing each of other three faces, meeting each other at a second node diagonally opposite to the first node, into four uniform sections, thus modeling the hexahedral element into a vertex-refined transition unit mesh module.

2. The hexahedral finite element modeling method according to claim 1, wherein the face-refined transition unit mesh module accomplishes transition between the first face divided into four sections and the second face divided into sixteen sections.

3. The hexahedral finite element modeling method according to claim 1, wherein the edge-refined transition unit mesh module accomplishes transition between the first edge divided into two sections and the second edge divided into four sections.

4. The hexahedral finite element modeling method according to claim 1, wherein

the vertex-refined transition unit mesh module accomplishes transition between the three faces meeting each other at the first node and each divided into four uniform sections, and the other three faces meeting each other at the second node and each partially divided into four uniform sections.

5. A storage medium of a hexahedral finite element modeling system, comprising:

a first program code for dividing one face of a hexahedral finite element into four uniform sections, and dividing a diagonally opposite face into sixteen uniform sections, thus modeling the finite element into a face-refined transition unit mesh module;

a second program code for modeling the hexahedral finite element into an edge-refined transition unit mesh module, which has two faces of the face-refined transition unit mesh module in common, and in which one edge of the finite element is divided into two uniform sections and a diagonally opposite edge is divided into four uniform sections;

a third program code for modeling the hexahedral finite element into a vertex-refined transition unit mesh module, which has three faces of the edge-refined transition unit mesh module in common, and in which three faces meeting together at one node of the finite element are each divided into four uniform sections, and three faces meeting together at a diagonally opposite node are each partially divided into four uniform sections;

a fourth program code for integrating the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module into a single structure at their faces having the same meshed patterns;

a fifth program code for displaying the structure of each of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module or the integrated structure of the element meshes in the form of a two- or three-dimensional image;

a sixth program code for printing the structure of each of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module or the integrated structure of the element meshes, displayed in the form of the two- or three-dimensional image, on a paper, thus obtaining a printed image of the structure;

a seventh program code for inputting, correcting and deleting a variety of numerical values of a target structure to be modeled into the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module; and

an eighth program code for storing data of the structure of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module.

6. The storage medium according to claim 5, further comprising a program code for setting the display environment for the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module, such as size and color of a viewer and environmental conditions of displayed letters.

7. The storage medium according to claim 5, further comprising:

a program code for displaying the structures of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module while rotating them in the form of a three-dimensional image; and

a program code for providing optimal integration of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module through a rotation of the meshes in the form of the three-dimensional image.

8. The storage medium according to claim 5, further comprising:

a program code for differentially storing data of the structures of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module by contents, sub-contents and numerical values relative to the contents;

a program code for allowing an operator to perform a search for the stored data about the structures of the face-refined transition unit mesh module, edge-refined transition unit mesh module and vertex-refined transition unit mesh module using keywords;

a program code for displaying the search results and displaying whether the search results are the contents, sub-contents or numerical values relative to the contents or not;

a program code for displaying search results corresponding to a designated one of the displayed search results; and

a program code for storing the search results in the keyword list.

9. The storage medium according to claim 8, further comprising:

a program code for adding units to the stored numerical value data;

a program code for converting the numerical value data in accordance with variable units; and

a program code for distinguishing the physical force of the numerical value data from the units of the numerical value data.

10. The storage medium according to claim 8, further comprising:

a program code for displaying the keyword list in the case of input of an inappropriate keyword a predetermined number of times; and

a program code for printing the search results on a paper.